

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A computer program product residing on a computer readable storage medium comprising instructions, including a context branch instruction that, when ~~executed~~ executed, causes a data processing apparatus to:
~~cause an instruction stream to branch to select another instruction of the in an instruction stream from one of a branch target instruction associated with a label specified by the context branch instruction and an instruction following the context branch instruction based on an evaluation of whether a comparison of a current executing context number matches to a context number specified by the context branch instruction; and~~
retrieve the selected other instruction.
2. (Currently amended) The computer program product of claim 1 wherein the branch instruction has one of the following formats:
br=ctx[ctx#, label#], optional_token; and
br!=ctx[ctx#, label#], optional_token;
wherein the label# is a symbolic label corresponding to an address of the other instruction, and wherein ctx# is the context number, wherein the syntax "br=ctx" represents a branching operation based on ctx# matching the current context number provided by the data processing apparatus, and wherein the syntax "br!=ctx" represents a branching operation based on the ctx# not matching the current context number provided by the data processing apparatus.
3. (Cancelled)

4. (Currently amended) The computer program product of claim ~~[[3]]~~ 2 wherein the specified context number has valid values of 0, 1, 2, or 3.

5. (Previously presented) The computer program product of claim 1 wherein the branch instruction has an optional token.

6. (Currently amended) The computer program product of claim 5 wherein the context branch instruction has an optional token that causes a processor to execute a number of instructions corresponding to the value of the optional token following the context branch instruction before performing ~~the a~~ branch operation.

7. (Currently amended) A method of operating a processor comprising:
~~evaluating performing a comparison of a context number of an executing context to determine whether the context number of the executing context matches a context number specified by a context branch instruction; and~~
selecting another instruction in an instruction stream from one of a branch target instruction associated with a label specified by the context branch instruction and an instruction following the context branch instruction based on the comparison; and
retrieving the selected other instruction.
~~branching to a specified instruction in accordance with evaluating the context number of the executing context.~~

8. (Currently amended) The method of claim 7 wherein branching selecting further comprises:
branching selecting the branch target instruction if the executing context number matches the specified context number.

9. (Original) The method of claim 7 wherein the context number has valid values of 0, 1, 2, or 3.

10. (Currently amended) A processor that can execute multiple contexts and that comprises:

a register stack;

a program counter for each executing context;

an arithmetic logic unit coupled to the register stack and a program control store that stores a context branch instruction that causes the processor to:

evaluate perform a comparison of a context number of an executing context to
~~determine whether the context number of the executing context matches~~ a context number specified by the branch instruction; and

select another instruction in an instruction stream from one of a branch target
instruction associated with a label specified by the context branch instruction and an instruction
following the context branch instruction based on the comparison; and

retrieve the selected other instruction.

~~branch to a specified instruction in accordance with evaluating the context~~
~~number of the executing context.~~

11. (Currently amended) The processor of claim 10 wherein ~~[[a]]~~ the context branch instruction occurs causes the processor to select the branch target instruction if the executing context number matches the specified context number.

12. (Original) The processor of claim 10 wherein the context number has valid values of 0, 1, 2, or 3.

13. (Currently amended) A computer program product residing on a computer readable storage medium, for causing a processor that executes multiple contexts to perform a function, comprises instructions causing the processor to:

evaluate perform a comparison of a context number of an executing context to
~~determine whether the context number of the executing context matches~~ a context number specified by a branch instruction; and

select another instruction in an instruction stream from one of a branch target instruction associated with a label specified by the context branch instruction and an instruction following the context branch instruction based on the comparison; and
retrieve the selected other instruction.
~~branch to a specified instruction in accordance with evaluating the context number of the executing context.~~

14. (Currently amended) The product of claim 13 wherein ~~[[a]]~~ the context branch instruction occurs causes the processor to select the branch target instruction if the executing context number matches the specified context number.

15. (Original) The product of claim 13 wherein the context number has valid values of 0, 1, 2, or 3.